



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBW7839-2G
Job Sheet 186431



Part No: RBW7839-2G

Job Qty: 3 pcs

Part Name: IGB & Tail Rotor Gear Box Oil Draining Hose



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/15/18

Job Tracking No:

Due Date: 12/7/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBW7839-2G Rev 5 IPP Rev A 18.02.13 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Small Fab - 1	3 pcs	12/7/18		0.00	0.50	Small Fab - 1		
							Small Fab - 2		
							Small Fab - 3		
							Small Fab - 4		
							Small Fab - 5		
							Small Fab - 6		
							Small Fab - 7		
110	QC 5	3 pcs	12/7/18		0.00	0.00	QC 5 - 10		
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 38		
							QC 5 - 42		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
							QC 5 - 50		
							QC 5 - 30		SB
130	Packaging 3-1 - Stock - B4B	3 pcs	12/7/18		0.00	0.00	Packaging 3 - 1 - B4B		
							Packaging 3 - 2 - B4B		
							Packaging 3 - 3 - B4B		
							Packaging 3 - 4 - B4B		
							Packaging 3 - 5 - B4B		
							Packaging 3 - 6 - B4B		



Container No: S147776

Part: RBW7839-2G

Job No: 786431

Serial No/Batch: S147776

Revision: 5

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawthorn, VIC 3122
TEL: 1 813 632-5200
Email: sales@dartaero.com
www.dartaero.com

Date: 01/24/19

					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	MLL
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
					Packaging 3 - 15 - B4B	
					Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	
					Packaging 3 - 24 - B4B	
					Packaging 3 - 25 - B4B	
					Packaging 3 - 26 - B4B	
					Packaging 3 - 27 - B4B	
					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Packaging 3 - 35 - B4B	
					Packaging 3 - 36 - B4B	
140 QC 21 - FG	3 pcs	12/7/18	0.00 0.00		QC 21 - FG - 21	DAS 21 JAN 24 2019
					QC 21 - FG - 70	

GA 100

Part Op **100** - Small Fab 0 1-Assemble, pick, bag and tag Install a 1.0" long, 0.38" OD, 0.25" ID piece of Stainless Steel into one
 Descriptions: end of the Kuri-Tech Hose until flush. Attach the modified end of the Kuri-Tech Hose to the Coupling before placing tool
 into packaging (if applicable).
110 - QC5- Inspect part completeness to step on W/O
130 - Identify as per dwg & Stock Location: _____
140 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RBW7839-2G-1	Quill	3 pcs (1 ea)	100-Small Fab - 1	
2044T47	Tube Ø1.09	.9000 ft (.3 ea)	100-Small Fab - 1	
2044T67	Cap Ø1.09	6 Ea (2 ea)	100-Small Fab - 1	
51495K116	COUPLING 1/2" NCKL PLTD BRASS	3 Ea (1 ea)	100-Small Fab - 1	
9263K174	Rnd 10Mm Od X 2Mm Oring	3 Ea (1 ea)	100-Small Fab - 1	
K010-0608	Hose Ø1/2 OD x Ø3/8 ID	18 ft (6 ea)	100-Small Fab - 1	
M304TR0.375W.065	304 Round Tube .375 X .065W	.2490 ft (.083 ea)	100-Small Fab - 1	
PAD210	Foam Ø1 X 1	.2400 sf (.08 ea)	100-Small Fab - 1	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Small Fab - 1	2044T47	1	29	0
	2044T67	6	113	0
	51495K116	3	43	0
	9263K174	3	25	0
	K010-0608	18	279	0
	M304TR0.375W.065	0	60	0
	PAD210	0	12	0
	RBW7839-2G-1	3	8	0

Part Specifications
Specifications could not be found.

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RBW7839-2G
Job Sheet 186431



2014
NOV 30

Part No: RBW7839-2G

Job Qty: 3 ea

Part Name: IGB & Tail Rotor Gear Box Oil Draining Hose



Part Weight: 0 lbs

Status: New

Job Created: 11/15/18

Job Tracking No:

Due Date: 12/7/18

Created By: Mari

Type: SOLD

Description:

Note: DWG RBW7839-2G Rev 5 IPP Rev A 18.02.13 New issue DP Verify DD

Ship Via:

2 in stock
100 QA

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	3 Ea		12/7/18	0.00	0.00	Start Up Small Fab-4		
100	Small Fab	3 pcs		12/7/18	0.00	0.50	Small Fab-9		
110	QC	3 pcs		12/7/18	0.00	0.00	QC5		
130	Packaging	3 pcs		12/7/18	0.00	0.00	Packaging3-2		
140	QC21-FG	3 Ea		12/7/18	0.00	0.00	QC21		

Part Op 100 - 1-Assemble, pick, bag and tag Install a 1.0" long, 0.38" OD, 0.25" ID piece of Stainless Steel into one end of the Descriptions: Kuri-Tech Hose until flush. Attach the modified end of the Kuri-Tech Hose to the Coupling before placing tool into packaging (if applicable).

130 - Identify and Stock

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RBW7839-2G-1	Quill	3 Ea (1 ea)	90-Start up Operation	5136979
2044T47	Tube Ø1.09	.9000 ft (.3 ea)	90-Start up Operation	5016490
2044T67	Cap Ø1.09	6 Ea (2 ea)	90-Start up Operation	5137367
51495K116	COUPLING 1/2" NCKL PLTD BRASS	3 Ea (1 ea)	90-Start up Operation	5145155
9263K174	Rnd 10Mm Od X 2Mm Oring	3 Ea (1 ea)	90-Start up Operation	5047592
K010-0608	Hose Ø1/2 OD x Ø3/8 ID	18 ft (6 ea)	90-Start up Operation	PS103496
PAD210	Foam Ø1 X 1	.2400 sf (.08 ea)	90-Start up Operation	5021250
M304TR0.375W.065	304 Round Tube .375 X .065W	.2490 ft (.083 ea)	100-Small Fab	5145223

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	2044T47	1	21	0
	2044T67	6	62	0
	51495K116	3	43	0
	9263K174	3	17	0
	K010-0608	18	419	0
	PAD210	0	11	0
	RBW7839-2G-1	3	0	0
100-Small Fab	M304TR0.375W.065	0	20	0

Part Specifications

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Specifications could not be found.

Plex 11/15/18 11:07 AM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

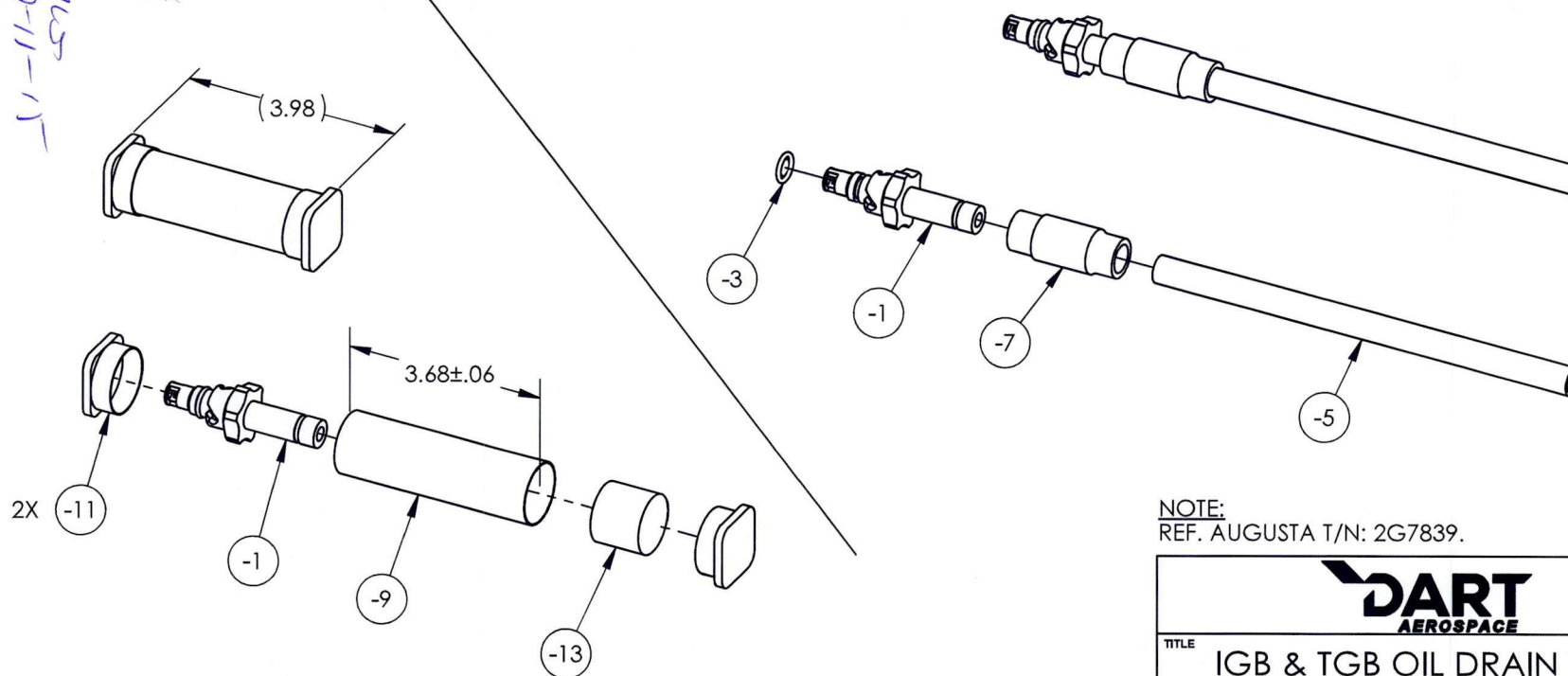
Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
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Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

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REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CH'D TITLEBLOCK & REV BLOCK, CH'D T/N FROM RBW7839, CH'D INK STAMP NOTE, -1 CH'D ANGLE OF GROOVE PER G.E.	8/20/2009	RJC	RW
1A		CH'D TOOL NAME FROM MAIN GEAR BOX DRAIN TOOL PER E.B.	11/28/2011	RJC	RW
2		MODIFIED -1 TO WORK WITH COUPLING, ADDED COUPLING, TUBE, AND CAPS, DELETED CRIMP HOSE CLAMP AND LABEL. CH'D HOSE FROM Ø5/8 TO Ø1/2.	7/27/2012	JAG	SE
3		-1 CH'D O.D. PROFILE WAS (8X.165) IS (6X R.375), SLOT DIM WAS .119 IS .119 +.005/-0.000.	2/26/2013	BIM	GE
3A		-9 CH'D DIM WAS 3.78 IS 3.68. -13 CH'D MATERIAL TO NEW PIG CORP. #PAD210. -1 CH'D DIM WAS .020 IS .02, WAS Ø.250 THRU IS Ø.25 THRU. DELETED 6X .106, .082. CH'D NOTE WAS 6X R.375 EQUALLY SPACED IS 6X R.38 EQUALLY SPACED ON Ø1.60 B.C.	2/5/2014	DPD	RW
4	16-0066	UPDATED TO NEW STANDARD. -1 CH'D DIMS WAS Ø.729 +.000-.002 IS Ø.727 +.000-.002, WAS 2X Ø.494 +.000-.002 IS 2X Ø.492 +.000-.002. -3 CH'D B/O INFO WAS #90145A433 IS #9263K297.	6/30/2016	RJC	SM
5	17-0077	-3 CH'D B/O INFO WAS Ø12mm ID x 2mm WIDTH (MCMaster-CARR # 9263K174) IS Ø10mm ID x 2mm WIDTH (MCMaster-CARR # 9263K174)	3/30/2017	SM	JAG

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WORK ORDER
NO. 186431 MCL
18-11-15

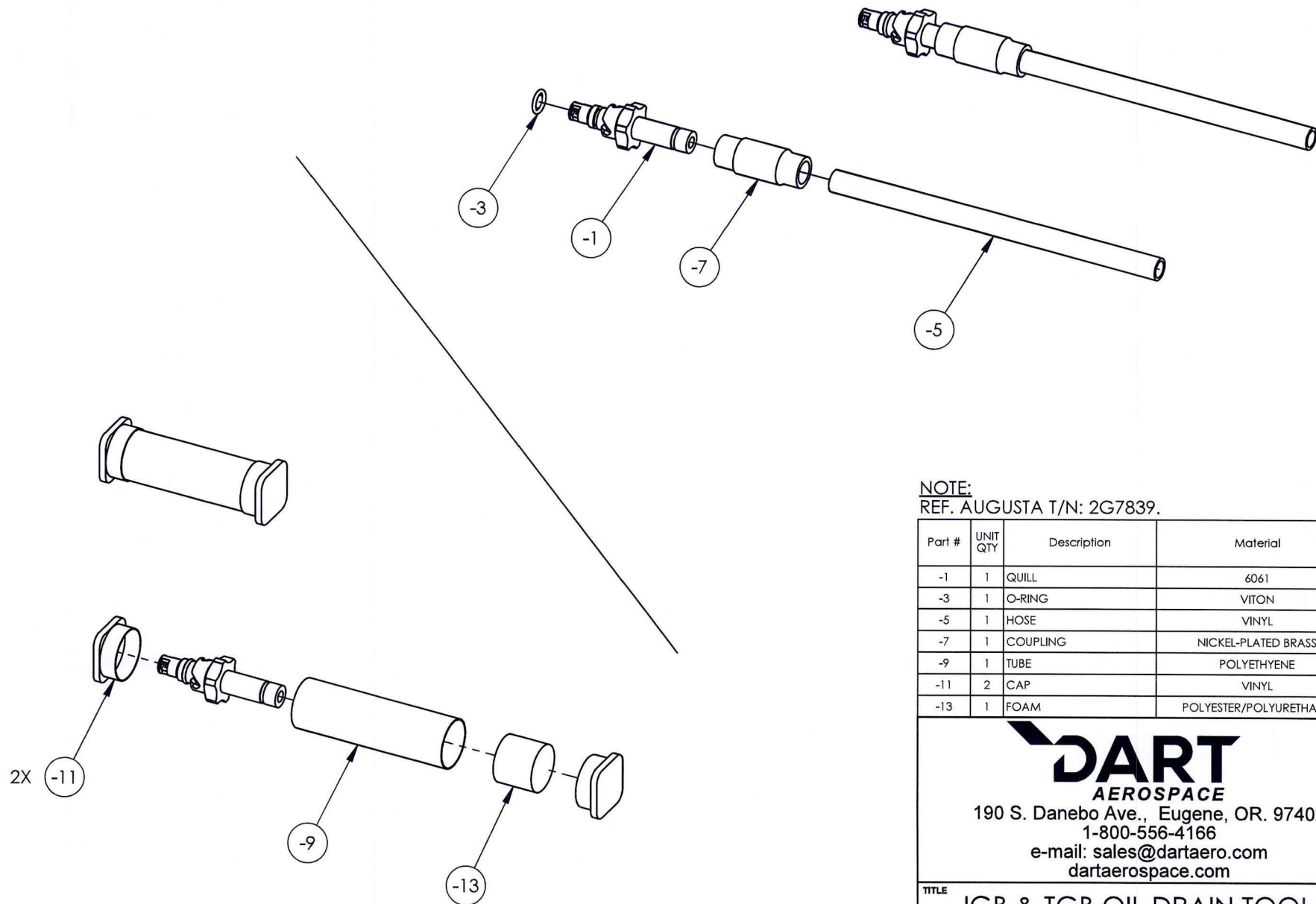


NOTE:
REF. AUGUSTA T/N: 2G7839.

DART AEROSPACE																					
TITLE IGB & TGB OIL DRAIN TOOL																					
DWG NO. RBW7839-2G	REV 5																				
<table border="1"> <tr> <td>MAT'L</td> <td>UNLESS OTHERWISE SPECIFIED</td> </tr> <tr> <td>HEAT TREAT</td> <td>DIMENSIONS ARE IN INCHES</td> </tr> <tr> <td>FINISH</td> <td>.XXX ± .005 FRACTIONS ± 1/8</td> </tr> <tr> <td>SPEC</td> <td>.XX ± .01 ANGLES ± 5°</td> </tr> <tr> <td></td> <td>.X ± .1 SURFACES = 125/</td> </tr> <tr> <td colspan="2">1. BREAK ALL SHARP EDGES .015 x 45° OR .016R</td> </tr> <tr> <td colspan="2">2. DIMENSIONAL LIMITS APPLY AFTER PLATING</td> </tr> <tr> <td colspan="2">3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009</td> </tr> <tr> <td colspan="2">USED ON MODEL</td> </tr> <tr> <td colspan="2">AW139</td> </tr> </table>		MAT'L	UNLESS OTHERWISE SPECIFIED	HEAT TREAT	DIMENSIONS ARE IN INCHES	FINISH	.XXX ± .005 FRACTIONS ± 1/8	SPEC	.XX ± .01 ANGLES ± 5°		.X ± .1 SURFACES = 125/	1. BREAK ALL SHARP EDGES .015 x 45° OR .016R		2. DIMENSIONAL LIMITS APPLY AFTER PLATING		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009		USED ON MODEL		AW139	
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AW139																					
<table border="1"> <tr> <td>DRAWN BY:</td> <td>PERRITT</td> </tr> <tr> <td>CHECKED:</td> <td>DUERFELDT</td> </tr> <tr> <td>OPPS APPR:</td> <td>ANDERSON</td> </tr> <tr> <td>QA APPR:</td> <td>LINDSAY</td> </tr> <tr> <td>APPROVED:</td> <td>MACKOVJAK</td> </tr> <tr> <td>SCALE</td> <td>1:3</td> </tr> <tr> <td>DATE</td> <td>11/12/2008</td> </tr> <tr> <td colspan="2">SHEET 1 OF 3</td> </tr> </table>		DRAWN BY:	PERRITT	CHECKED:	DUERFELDT	OPPS APPR:	ANDERSON	QA APPR:	LINDSAY	APPROVED:	MACKOVJAK	SCALE	1:3	DATE	11/12/2008	SHEET 1 OF 3					
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QA APPR:	LINDSAY																				
APPROVED:	MACKOVJAK																				
SCALE	1:3																				
DATE	11/12/2008																				
SHEET 1 OF 3																					

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	QUILL	6061		2
		B/O	-3	1	O-RING	VITON	Ø10mm ID X 2mm WIDTH (MCMaster-CARR # 9263K174)	1
		B/O	-5	1	HOSE	VINYL	Ø1/2 O.D. x Ø3/8 I.D. x 6ft (KURI-TECH #K010-0608)	1
		B/O	-7	1	COUPLING	NICKEL-PLATED BRASS	Ø1/2 (MCMaster-CARR #51495K116)	1
		B/O	-9	1	TUBE	POLYETHYLENE	Ø1.09 (MCMaster-CARR #2044T47)	1
		B/O	-11	2	CAP	VINYL	Ø1.09 (MCMaster-CARR #2044T67)	1
		B/O	-13	1	FOAM	POLYESTER/POLYURETHANE	Ø1 X 1 (NEW PIG CORP. #PAD210)	1

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NOTE:
REF. AUGUSTA T/N: 2G7839.

Part #	UNIT QTY	Description	Material
-1	1	QUILL	6061
-3	1	O-RING	VITON
-5	1	HOSE	VINYL
-7	1	COUPLING	NICKEL-PLATED BRASS
-9	1	TUBE	POLYETHYLENE
-11	2	CAP	VINYL
-13	1	FOAM	POLYESTER/POLYURETHANE

DART
AEROSPACE

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1-800-556-4166
e-mail: sales@dartaero.com
dartaerospace.com

TITLE IGB & TGB OIL DRAIN TOOL			
DWG NO. RBW7839-2G	REV 5	CUSTOMER 1 OF 1	
SCALE 1:3	DATE 11/12/2008	SHEET 3 OF 3	